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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,302	01/23/2001	Kazuyuki Sato	FUSA 18.263	3527

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EXAMINER

DENNISON, JERRY B

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,302

Applicant(s)

SATO ET AL.

Examiner

J. Bret Dennison

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 6 is/are rejected.
- 7) ☐ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Action is in response to Application Number 09/767302 received on 13 October 2004.
2. Claims 1-3 and 5-9 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe et al. (U.S. Patent Number 5,333,131) in view of Antonov (U.S. Patent Number 6,044,080).

3. Regarding claim 1, Tanabe discloses a routing apparatus for obtaining routing data conforming to a destination address of a packet that arrives from a line, adding the routing data onto the packet, and switching the packet based upon the routing data to send the packet to a prescribed line, comprising:

a main controller having a routing data generator for generating routing data conforming to a requested destination address and sending the routing data to a requesting source (Tanabe, col. 6, lines 4-5);

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a line interface for extracting a destination address from a packet that arrives from a line, generating routing-data request for requesting said main controller to be notified of routing data conforming to this destination address, adding the routing data of which notification has been given by said main controller onto the packet and then outputting the packet (Tanabe, col. 5, lines 55-67 and col. 6, lines 4-60); and

a switch for sending the routing data request, which enters from a prescribed line interface, to the main controller, sending the routing data from said main controller to a line interface of the requesting source, and switching a packet with attached routing data based upon the routing data to thereby send the packet to another line interface (Tanabe, col. 6, lines 25-35).

Tanabe does not explicitly state wherein said main controller has routing data generators that are associated with respective ones of line speeds;

said line interface adds a line identifier onto a destination address of a packet that arrives from a line so that the routing-data request is created and requests said main controller to be notified of routing data; and

said main controller responds to the request by generating routing data from whichever routing data generator corresponds to a line speed indicated by the line identifier and sending this routing data to the line interface that is the requesting source.

4. In an analogous art, Antonov discloses a scalable parallel packet router wherein a processing node sends packets containing a communication line identifier on the packet's destination address to an egress processing node which selects the interface by the identifier received with the packet (Antonov, col. 5, line 45 through col. 6, line 20).

5. Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the teachings of Antonov into the system of Tanabe to achieve practically unlimited aggregate and per-line data throughput of a connectionless packet network router (Antonov, col. 2, lines 39-42).

6. Regarding claim 2, Tanabe and Antonov disclose the features of the invention, substantially as claimed, as described in claim 1, including wherein said routing data generator of said main controller includes:

an associative memory for storing routing data (Tanabe, col. 9, lines 55-63);

a key-data memory for storing key data conforming to destination addresses (Tanabe, col. 13, lines 38-40);

a converter which, when key data conforming to the requested destination address exists in said key-data memory, is for converting this key data to an address of said associative memory (Tanabe, col. 13, lines 38-46); and

a routing-data sending unit for reading routing data out of the associative memory from this address and sending this routing data to the line interface that is the requesting source (Tanabe, col. 13, lines 40-42, Tanabe teaches the controller accessing the VP table and selecting some originating transit lines on which the VP destined for the terminating local node is established).

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7. Regarding claim 5, Tanabe and Antonov disclose the features of the invention, substantially as claimed, as described in claim 4, including wherein lines having any line speeds are connected to said line interface (Tanabe, col. 5, lines 58-61).

8. Regarding claim 6, Tanabe and Antonov disclose the features of the invention, substantially as claimed, as described in claim 2, including wherein each line interface adds a key flag onto a packet for the routing-data request to be sent to said main controller, adds a data flag onto a packet and inputs the result to said switch; and said switch sends the packet with the attached key flag to said main controller and sends the packet with the attached data flag to a line interface on the output side based upon the routing data (Tanabe, col. 6, lines 54-67, Tanabe teaches the line interfaces extracting routing data information for a read address and header information. col. 7, lines 43-67, Tanabe teaches that the switch responds to an output port number to which the input packet is to be delivered).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe et al. (U.S. Patent Number 5,333,131) in view of Antonov (U.S. Patent Number 6,044,080), as applied to claims 1 and 2, and further in view of Segal (U.S. Patent Number 5,737,404).

9. Regarding claim 3, Tanabe and Antonov disclose the features of the invention, substantially as claimed, as described in claim 2. However, Tanabe does not teach wherein said main controller is provided in duplicate to furnish a working main controller and a standby main controller;

when the working main controller updates content stored in each of said memories, said main controller updates also content stored in each of the memories of the standby main controller; and

when the working main controller develops a failure, the standby main controller continues routing control by serving as a new working main controller.

In an analogous art of networking, Segal teaches wherein all content is duplicated and forwarded to the standby processing module (Segal, col. 7, lines 25-50).

Tanabe, Antonov, and Segal are analogous art because they include transmitting data through a packet based network using a routing table in memory.

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to combine Tanabe and Antonov with Segal to provide a system containing a standby controller for the benefit of backing up the main controller and

being able to assume the active status in the event of the failure of the main controller (Segal, col. 8, lines 5-12).

Allowable Subject Matter

10. Claims 7-9 are in condition for allowance. Claim 7 has been amended to independent form and claims 8 and 9 depend from claim 7.

Response to Arguments

11. Applicant's arguments filed 13 October 2004 have been fully considered but they are not persuasive. Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., *by incorporating the limitations of claim 4 in to independent claim 1 will require further search and consideration*) to the claims which significantly affected the scope thereof.

12. Applicant's arguments have been fully considered but they are not persuasive. Applicant's arguments include the failure of previously applied art to expressly disclose the teachings of routing data generators associated with respective ones of line speeds [see Applicant's Response, page 8]. It is evident from the mappings found in the above rejection that the combination of Tanabe and Antonov discloses the teaching routing data based from line speeds. Further, it is clear from the numerous teachings (previously and currently cited) that the provision for using "switching the packet based upon the routing data to send the packet to a prescribed line" was widely implemented in the networking art.

13. Applicant only claims adding an line identifier onto a destination address of a packet. By Antonov determining a line identifier from the packet's destination address using a routing table, the combination of Tanabe and Antonov disclose the claimed invention.

14. Thus, Applicant's arguments drawn toward distinction of the claimed invention and the prior art teachings on this point are not considered persuasive. It is also clear to the Examiner that Tanabe and Antonov clearly teach independent claim 1 of the Applicant's claimed invention.

15. Furthermore, as it is Applicant's right to continue to claim as broadly as possible their invention, it is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. As it is extremely well known in the networking art as already shown by Tanabe and Antonov as well as other prior arts of records disclosed switching a packet based on the routing data to send the packet to a prescribed line is taught as well as other claimed features of Applicant's invention. By the rejection above, the applicant must submit amendments to the claims in order to distinguish over the prior art use in the rejection that discloses different features of Applicant's claimed invention.

16. It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art.

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17. Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

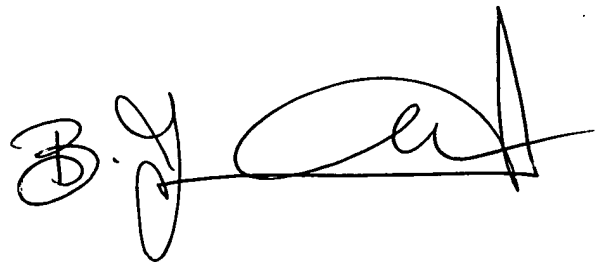
Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571)272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703)308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


J. B. D.
Patent Examiner
Art Unit 2143



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PRIMARY EXAMINER